C L A I M S

1. A communication device for communicating with an external device, comprising:

a communication unit which communicates with an external device;

means for searching an external device surrounding the communication device through the communication unit both for a first time and for a second time;

means for receiving a response from an external device corresponding to the searching;

means for detecting a connection object coming out of the external device that did not provide a response within the first time, and did provide a response within the second time; and

means for establishing a communication connection with the connection object detected by the detecting means.

2. A communication device according to claim 1, wherein the first time is variable.

3. A communication device according to claim 2, wherein the first time is until the total number of devices which have provided a response does not change within a given time period.

4. A communication device according to claim 1, wherein the second time is variable.

5. A communication device according to claim 4, wherein the second time is until the receiving means receives a response from an external device that the

receiving means did not receive a response provided for the first time.

6. A communication device according to claim 4, wherein the second time is until the total number of devices which have provided a response does not change within a given time period.

7. A communication device according to claim 1, wherein the response includes a device information indicating attribute of an external device.

8. A communication device according to claim 7, further comprising:

means for storing attribute information showing the attribute which the device to be detected as the connection object should comprise.

9. A communication device according to claim 8, wherein the detecting means comprises:

means for extracting a device information of the external device from that the receiving means did not receive the device information for the first time, that the receiving means did receive the device information for the second time, and that coincides with the attribute shown by the attribute information stored in the storing means; and

means for selecting the external device extracted by the extracting means as the connection object.

10. A communication device according to claim 1, further comprising:

means for displaying the external devices detected by the detecting means when the external devices

detected are two or more but within a predetermined number; and

means for inputting information indicating one of the external devices selected as a connection object,

wherein the establishing means establishes the communication connection with the external device indicated by the information from the inputting means.

11. A communication device according to claim 1, further comprising:

means for informing that searching in the first time is complete; and

means for inputting instruction which requests the searching means to search an external device for the second time.

12. A communication device according to claim 11, wherein the inputting means comprises an audio input device for input of the instruction.

13. A communication device according to claim 12, wherein the informing means comprises a speaker.

14. A communication device according to claim 1, wherein the communication unit comprises a wireless communication device.

15. A communication device according to claim 1, wherein the communication unit comprises a wired communication device.

16. A method for detecting a communication device as connection object, comprising the steps of:

setting a first communicating device in a first condition in which the first communication device does not communicate for a first time, and in a second condition in which the first communication device does communicate for a second time;

searching a communication device which surrounds a second communication device and is able to communicate the second communication device both for the first time and for the second time; and

detecting the first communicating device coming out of the communicating device that did not communicate in the first time, and that was able to communicate in the second time.

17. A method for establishing a radio connection between communication devices, comprising the steps of;

setting a first communication device in a first condition in which the first communication device does not respond to an inquiry;

outputting a first inquiry from a second communication device for a predetermined time so as to receive response from a communication device surrounding the second device;

setting the first communication device in a second condition in which the first communication device responds to an inquiry;

outputting a second inquiry from the second communication device for a predetermined time so as to receive response from a communication device surrounding the second device;

detecting the first communication device coming out of the communication device that did not respond to the first inquiry and did respond to the second inquiry; and

establishing a communicating connection between the first communication device and the second communication device.

18. A method for establishing a radio connection between communication devices, comprising the steps of;

setting a first communication device in a first condition in which the first communication device does respond to an inquiry;

outputting a first inquiry from a second communication device for a predetermined time so as to receive response from a communication device surrounding the second device;

setting the first communication device in a second condition in which the first communication device does not respond to an inquiry;

outputting a second inquiry from the second communication device for a predetermined time so as to receive response from a communication device surrounding the second device;

detecting the first communication device coming out of the communication device that did respond to the first inquiry and did not respond to the second inquiry; and

establishing a communicating connection between the first communication device and the second communication device.